Apacer

The Most **Reliable**
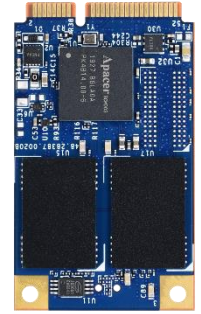# Storage For Industries

SH240-300

Overview

Apacer's SH240-300 is a well-balanced solid-state drive (SSD) with a standard form factor and exceptional performance. Designed with a SATA 6 Gb/s interface, SH240-300 fully complies with the latest SATA Revision 3.2 specifications, delivering outstanding read/write speeds. Its random performance is further enhanced by integrating DRAM into the internal controller, making it an ideal companion for heavy-loading industrial or server operations.

Utilizing 3D NAND technology for higher capacities up to 640GB and providing greater power efficiency than 2D NAND, SH240-300 is built with a powerful SATA controller that supports on-the-module ECC and an efficient wear leveling scheme. It also features an LDPC (Low Density Parity Check) ECC engine and SLC-liteX technology with P/E cycles support of up to 100,000 times, extending SSD endurance and enhancing data reliability. Additionally, SH240-300 includes a built-in thermal sensor to monitor the SSD's temperature via S.M.A.R.T commands, preventing overheating. For highly-intensive applications, End-to-End Data Protection ensures data integrity across multiple points in the path, enabling reliable data transfers.

In terms of security, SH240-300 offers robust data protection with Advanced Encryption Standard to safeguard against unauthorized access. It also includes numerous advanced features such as flash block management, DataDefender, ATA secure erase, TRIM, page mapping, device sleep, power-saving modes, DataRAID, and SMART Read Refresh.
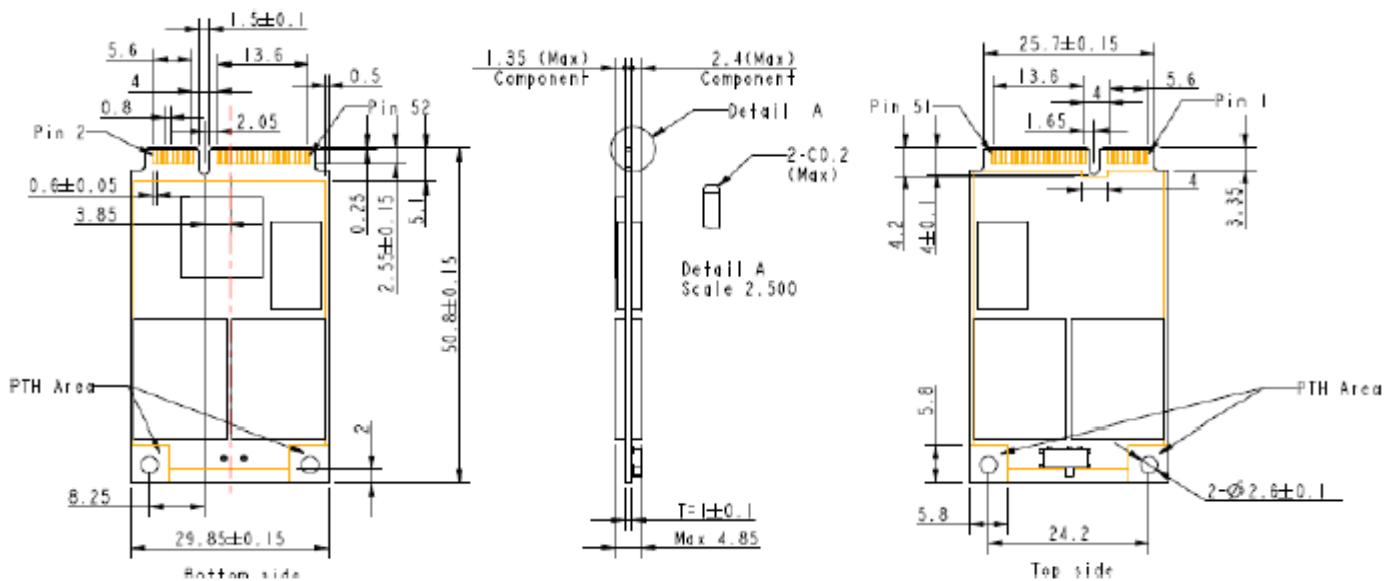
Features

· Low-Density Parity-Check (LDPC) Code

· Global Wear-leveling

· Flash Bad Block Management

· Flash Translation Layer: Page Mapping

· DataDefender^{TM}

· S.M.A.R.T.

· TRIM

· SMART Read Refresh^{TM}

· ATA Secure Erase

· Device Sleep

· SATA Power Management

· SLC-liteX (P/E cycles: 100K)

· DataRAID^{TM}

Specifications

Model Name	SH240-300
Interface	SATA 3.2 (6Gb/s)
Connector	52-pin
Form Factor	JEDEC MO-300
NAND Flash Type	3D TLC
Capacity	40GB~640GB
External DRAM	Yes
Sustained Read Performance (MB/sec.)	Up to 560
Sustained Write Performance (MB/sec.)	Up to 495
ECC Engine	Low-Density Parity-Check (LDPC) Code
IOPS (4K Random Write)	82K
Standard Operating Temperature (°C)	0°C ~ 70°C
Extended Operating Temperature (°C)	-40°C ~ 85°C
Storage Temperature (°C)	-55°C ~ 100°C
Housing	-
Thermal Sensor	-
Shock	Operation: 50G/11ms (Compliant with MIL-STD-202G) Non-operation: 1500G/0.5ms (Compliant with MIL-STD-883K)
Vibration	Operation: 7.69 Grms, 20~2000 Hz/random (Compliant with MIL-STD-810G) Non-operation: 4.02 Grms, 15 ~ 2000 Hz/sine (Compliant with MIL-STD-810G)
Operating Voltage	3.3V ±5%
Power Consumption	Active Mode: 605 mA / Idle Mode: 85mA
Dimension (L x W x H)	50.80 x 29.85 x 4.85, unit: mm
MTBF (Hours)	>3,000,000

Mechanical Specifications

For more information,
contact your Apacer representative